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ABSTRACT

Reported are aspects of the Home-Oriented Preschool Education (HOPE) Program, notably the extensive follow-up study of the program. Contents focus on the history of the HOPE Program, the summative evaluation of HOPE, the preliminary phase of the follow-up study, the study's main phase, measurement procedures used, and the third, fourth, and final stages of follow-up. Topics addressed include prevention of early school failure, prevention of school dropout, program effects on parents, HOPE and school-family relations, as well as children's adjustment, school performance, and HOPE. Findings indicated that participation in HOPE's home visitor treatment resulted in favorable outcomes in parenting, school-family relations, school performance, and children's adjustment. HOPE related to a larger number of favorable results for participants who had sons than for those with daughters. In the instance of Academic Orientation, however, HOPE's effects were quite similar for boys and girls. Conclusions, implications, and recommendations point to the need for all parents of young children to have opportunities to develop their own effectiveness as mediators of their children's educational experiences over all the years of learning. (RH)

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Occasional Paper Series

HOPE Revisited: Preschool to Graduation, Reflections on Parenting and School-Family Relations

Occasional Paper 28

Prepared by Edward Earl Gotts

February 1989

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Prepared by

Edward Earl Gotts

Prepared for

Appalachia Educational Laboratory

February 1989

The Appalachia Educational Laboratory (AEL), Inc., works with educators in ongoing R & D-based efforts to improve education and educational opportunity. AEL serves as the Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia. It also operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL works to improve:

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- community support, and
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History of HOPE

In 1966, the Appalachia Educational Laboratory (AEL) was created as one of a national network of educational research and development agencies that were to serve the needs of their respective regions. For AEL this meant serving the nonurban parts of six states: Kentucky, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia. In time, Alabama "joined" the AEL Region, bringing to seven the states which it served.

AEL defined its mission focus by conducting a regional assessment of needs. Preschool education was identified as one of the Region's most urgent needs for an educational agenda. The following observations were germane to the designation of preschool as a need: public kindergartens generally were not available to serve the needs of nonurban residents; nonurban Appalachians were viewed, in the spirit of that era, as educationally disadvantaged; the children of AEL's Region were known to drop increasingly behind national achievement norms as they advanced through the years of schooling; they later had lower than average participation in higher education; and Head Start had put preschool on the national agenda as a strategy in the "War on Poverty" for families like those living in rural Appalachia.

Two years of planning and program design ensued (1966-1968). AEL would deliver a novel preschool experience that departed markedly from the traditional kindergarten's format and design. The AEL preschool's novelty was not based on any quarrel with kindergarten as such, nor did it arise from a desire to be or do something different. Instead, the program's novelty arose from thoughtful reflection about the Region's resource limitations as well as its assets. The Region's economy could not support center-based preschools; suitable classroom space was unavailable; transportation was a serious problem due to the mountainous topography, poor roads, and scattered and sometimes isolated population; and there were insufficient qualified personnel to teach—obstacles seemed insurmountable.

The solution was three program delivery components: daily television lessons, home visitation with printed materials that correlated with the television lessons, and group experience with other young children once a week in a mobile classroom van. Television would surmount problems of transporting young children; school would come to the home. The home visitor, a locally trained and supervised paraprofessional, would personalize and individualize the television lessons to the parent and child, responding further to questions and issues raised by parents. With TV and home visitor in place, classrooms would not need to be constructed, the cost of delivering the program would be modest, and the shortage of early childhood personnel would be less troublesome. The addition of a weekly experience in a mobile classroom would help prepare children for a classroom setting; yet a single teacher plus an aide could provide this experience for large numbers of children. In practice, one teacher served eight groups of 15 children per week in half-day sessions, with one day reserved for planning and preparations.

The Appalachia Preschool Education program became a reality by 1968. In time the more descriptive program name, Home-Oriented Preschool Education (HOPE), was assigned. HOPE was implemented for three years (1968-1971) as a field experiment in southern West Virginia, an area that is part of Central Appalachia. The sampling design was more rigorous than was typical in that era for field experiments in education. Great care was taken to establish developmentally relevant objectives. Over the three years of experimental operation, formative evaluation of curriculum and program components was combined with extensive objective measurement of children's development and achievement of program goals (Gotts, 1983; Gotts & Purnell, 1986). The result was that each year the program more nearly approximated the model on which it was based. That is to say, the second and third years of operation were not

strictly replications; instead they were successive approximations of an ideal.

Nevertheless, there is reason to believe that the impact of the television and home visitor components was as great in the first year of the program as in subsequent years. The classroom or group experience component, on the other hand, appeared to be faithfully matched to the HOPE model in the third year only, although its impact in the first two years was obviously important. Certainly the opportunity to interact with other young children and to experience cognitive demands from adults outside the family were common to the mobile classroom component through all three years of the initial experiment.

By a process of random assignment, families in the field experiment entered one of three treatments: TV-only, TV plus home visitor (TV-HV), and TV plus home visitor plus group experience (package). Each year an outside-of-community control group was also selected; these were tested but had no access to any of the other treatment components including the TV broadcast. The three treatments represented differing levels of cost; thus, comparisons and contrasts among the three treatment groups and the outside control group permitted analysis of costs of differing levels of treatment, i.e., from television only through the whole package, and the beneficial results associated with each. That is, the experimental design did not attempt to fathom the effects of each component separately but looked at them additively, as would be required to make administrative decisions about "how much" of the treatment to adopt and at what cost, for what expected results.

AEL arranged replications of HOPE at sites in five states of the Region (1971-1973) and conducted a kingergarten comparison study. During the replication phase and in the immediately following years through 1978, AEL developed and published manuals, curricular material sets, and a home visitor's kit that could be used to support widespread implementation of programs similar to HOPE.

Summative Evaluation of HOPE

Objective test data confirmed that the HOPE children in all three treatment groups outperformed outside control children in early conceptual development (Appalachia Preschool Test, criterion referenced to the curriculum), psycholinguistic functions (Illinois Test of Psycholinguistic Abilities, Revised), receptive verbal ability (Peabody Picture Vocabulary Test), and perceptual-motor problem solving (Marianne Frostig Developmental Test of Visual Perception). The TV-HV and package children tended to exceed the TV-only children in several of the performance areas measured, confirming that more of the treatment produced stronger effects. Similar comparisons between the TV-HV group and those receiving the entire treatment package revealed fewer differences, but when present they favored the package group. By contrast, the package group distinctly outperformed all others in an observational study that directly assessed the children's maturity of behavior during social interactions with peers. The package children were also more advanced in their expression of curiosity and exploratory behavior when confronted with novel environmental stimuli. To summarize, following treatment the groups were ordered in terms of their performances, from most to least favorable: package, TV-HV, TV-only, and outside control. However, if only objective tests were considered, the first two groups would have been virtually tied for rank one.

Based on the immediate post-treatment evidence, the following conclusions were warranted: HOPE significantly and pervasively advances the development of preschool children in areas that strongly predict future school success; even participating in the TV-only group results in these immediate gains compared to untreated children; adding home visitation results in significantly greater gains; and adding a group experience adds to social maturity and directed curiosity. More mature social interaction patterns also resulted from home visits, but group experience was a surer route to this outcome.

During the replication phase, conclusions were based on the Appalachia Preschool Test primarily, and only the package variant of the HOPE program was tested. From the several independently conducted evaluation studies at the various replication sites, it was concluded that HOPE was quite replicable in diverse rural locations. Test results were similar to those obtained in the original experiment. The kindergarten comparison (1970-1971) study revealed that, compared to an outside control group, the HOPE package treatment children excelled on all three parts of the Appalachia Preschool Test, while the kindergarten children excelled on only one part. Moreover, the package group surpassed the kindergarten group on the two remaining parts. The TV-HV group's scores exceeded those of the kindergarten group on one subtest. The TV-only and kindergarten groups did not differ from one another on any of the subtests. It was concluded that the TV-only condition of HOPE was equivalent to a kindergarten experience, as measured by this test, and that the fuller forms of the HOPE treatment produced child outcomes superior to those resulting from a standard kindergarten experience.

In 1975 the 1970-1971 HOPE summative evaluation results were reanalyzed by partitioning the sample by ability levels and by social class levels (Gotts, 1981, 1983). Using Peabody Picture Vocabulary Test scores from two occasions per child, three HOPE ability groupings could be established. These were respectively called below average (BA) for IQ 91.5 and below, lower average (LA) for IQ 92-102.5, and higher average (HA) for IQ 103 and above. These ability groups were formed without regard to the HOPE treatment in which a child had participated. Analyses of all tests in the battery except the Appalachia Preschool Test supported the conclusion that children of all ability levels benefited equally from exposure to HOPE. However, results from the Appalachia Preschool Test showed that HA children gained at a faster rate than either BA or LA children. Generally, then, HOPE overcame or offset the usual pervasive

differences in early learning associated with differing levels of ability. A very similar pattern of results was obtained when the HOPE children were divided into three social class subgroupings. Because the sample sizes were quite limited, these latter findings were considered more tentative. Nevertheless, these findings suggested that HOPE likewise offset the effects of social class, producing comparable learning and developmental gains irrespective of class level.

HOPE Followup Study: Preliminary Phase

The first stage of the HOPE followup study was carried out in 1975 in cooperation with local school officials in the four counties of the original HOPE site. It was necessary to locate and positively identify individual participants; they had passed from their preschool experience on into the mainstream of their local schools. Not even a trace of their preschool program experience existed in their school records. The absence of such information in school records meant of course that their status as "HOPE" children was likely unknown to teachers and, consequently, was probably not a source of subsequent differential treatment or reputational bias (for example, as may be true for "Head Start" or "Chapter 1" children). They could pass thus anonymously into the mainstream of students.

Nevertheless, using family local addresses from 1968-1971 and the help of former home visitors and van drivers, nearly 300 of the 703 HOPE children were located. No attempts were made to locate members of the external control groups, since they had attended school in different systems, and the school effects for the experimental and control children would have been different and impossible to control for statistically in any analyses.

An abstract of record was made for each child at this time, with all information being recorded from school cumulative records onto code sheets. Abstracted data included attendance by year, student grades by subject and term, and objective test results from the West Virginia statewide testing program. Testing covered both achievement and ability at the elementary level.

As these preliminary followup data were analyzed, encouraging findings emerged. Children who had received home visitation (both TV-HV and package groups) were compared to those who had experienced the TV-only, with the latter group being designated as "community controls." The children whose parents received home visitation had superior attendance, higher grade point average, and higher objective test scores for ability and achievement, when compared to the TV-only children. The TV-only children had come to look increasingly by third grade like the untreated local school population, as judged by their standing on local norms; home visited children surpassed local norms.

It was now known that many of the original HOPE children could still be located. Moreover, the portion of the program that was oriented to the home, home visitation, had made a measurable contribution to the elementary school careers of the affected experimental groups. The component that was directed to the child only, TV without further assistance to the family, had shown initial results through 1971 but had washed out by 1975, as has been found to occur with other preschool programs that are oriented to the child only. It could, thus, be inferred that the superiority of the home visited families' children did not result directly from the original treatment; instead, the families had become more effective as mediators of their children's school experience. It was, therefore, the behavior of parents in the home visited groups that constituted an ongoing treatment during the years following the program. The parents had been treated; now they "treated!"

Main Phase of HOPE Followup Study

The first stage of the followup study had suggested that the HOPE home visitor treatment made families more effective mediators of their children's school experience. The evidence for this was differences between TV-only and home visited groups. The nature of parents' increased effectiveness could, however, only be established by directly measuring parent behavior, and this had not yet been accomplished. Accordingly, one goal of the second and main phase of the HOPE followup study was to assess important areas of parent behavior that might both have been affected by their participation in HOPE and that might explain their increased effectiveness as mediators of schooling. Second, the preliminary followup study did not measure family demographic factors that may have been of importance to the outcomes of schooling and that may have interacted with parent behavior and the HOPE treatment in ways that still remained unspecified. Third, AEL staff wished to examine other aspects of student behavior that were unavailable in cumulative records but might be obtained by further measurement. Thus, much potentially remained to be learned about HOPE that could be accomplished by conducting a more extensive followup study that would address the three issues just reviewed. Moreover, if high quality measures could be obtained of parent behavior, such an expanded followup study might add to existing knowledge of how parent behavior influences the outcomes of schooling.

AEL continued planning for a more comprehensive followup study from 1975 through 1977. One result of these efforts was that the National Institute of Education awarded AEL a planning grant that supported completion of the planning phase; selection and/or development of additional measurement procedures required; search for additional members of the HOPE sample; and completion of collection of data from student cumulative records. All of these were accomplished during 1977-1978, including pilot testing of new or substantially modified assessment procedures. By fall 1978, the main followup study was ready to begin, and the National Institute of Education awarded additional funds to conduct the data gathering phase and to perform much preliminary data analysis.

Measurement Procedures Used

In the main followup study, school cumulative records were assembled through the coding process to cover the entire elementary period and, for the older children, the junior high period. This was done for the 342 children who had been identified and located. In addition to attendance, grades, and test results for ability and achievement, cumulative records were scanned for information on whether a child had ever had to repeat a grade or was referred for special services. Teachers completed the School Behavior Checklist (SBC) for individual participants. The SBC is comprised of 138 items; a formal scoring system yields scores from the SBC for various patterns of social behavior and for selected intrapsychic characteristics such as personal disorganization and styles of defensiveness.

The available resources further permitted the study of about 210 parent-child pairs with an additional battery of measures. These children answered questions in an interview that yielded scores for self-concept and academic-occupational orientation. They also were tested with the Tasks of Emotional Development Test, from which AEL staff derived an overall psychosocial maturity index plus 13 maturity scores for individual developmental issues.

This subset of 210 parents participated in an extensive self-report interview. It measured parental attitudes, orientations, and child rearing styles. The interview also produced a wealth of demographic information including social class, birth order, community size, family composition, and so on. The following important variables were derived from this interview: parent's academic orientation, support of learning at home through school contact and encouragement, nurturance and affection, control or dominance, quality of home environment for learning, and socioeconomic status (SES). The foregoing will be referred to by these respective labels: Academic Orientation, Support, Nurturance, Control, Home Environment, and SES. These variables were reliable and related to other measures in ways suggesting that the assigned names validly indicate their essential character and meaning.

Parents completed a second interview that did not call for self-report but instead asked them to use directed imagination to describe and resolve developmental situations involving children of varying ages from infancy through early adolescence. Parents' responses were recorded and objectively rated relative to a particular model of parenting proposed by Erik Erikson (1963). The model, and hence the ratings based on it, consider that parenting primarily involves "giving care" to the young in ways that foster development. The fostering of development was measured relative to five issues: trust, autonomy, initiative, industry, and identity. The adult's giving of care and fostering development is identified by Erikson's label **generativity**. Generativity means promoting in children around each issue a balance tending toward a favorable outcome. In the study this overall tendency is called simply generativity. Generativity that produces trust is labeled GTrust; and by the same process these labels are assigned: GAuto, GInit, GIndust, and GIdent, each relating to one of the five Eriksonian issues. The scales that measure the preceding variables were found to be highly reliable and overall related in expected ways to other variables that supported the conclusion that they capture some of the essential meaning of the generativity construct.

Third Stage of Followup

During the 1982-1983 school year, after the first and smallest of the five HOPE scheduled graduation classes (about 5.5 percent of the 342 children in the followup sample) were to have graduated, a third phase of the study was conducted. AEL interviewed 184 of the HOPE families regarding their experiences, attitudes, and practices in the area of school-family relations. This work was performed using an interview developed and validated earlier by AEL staff (Gotts & Purnell, 1985; Gotts & Sattes, 1982). The purpose of this phase of the study was to clarify possible linkages between the other family variables measured five years earlier and measures derived from the school-family interview. A second purpose was to learn whether the HOPE treatment had affected the families' school-family relations practices.

Since most of the children had not reached the point of graduation for their class, the questions were posed in terms of the parents' current experiences of school-family relations. In a very few instances, parents were interviewed whose children had already graduated; in other instances, parents of dropouts were interviewed. For these parents whose children were no longer in school, the same questions were posed retrospectively to the "...time when your child was last in school."

Some important variables derived from the school-family interview were parent attendance at school activities, interest and involvement in their child's schooling, attitudes toward contact with school personnel, participation by parents in formal school organizations, and overall attitude toward school. The following brief labels are used to refer to the foregoing five variables: Parent Attendance, Interest-Involvement, Attitudes toward Personnel, Participation in Organizations, and Overall Attitude.

Fourth Stage of Followup

From 1981 through 1986, AEL continued accumulating information on the conclusion of the HOPE children's school careers. Much anecdotal information was assembled and collated with graduation lists. All of this was coded into final form in 1986 to reflect which children graduated and which ones dropped out. Of the 342 HOPE children whose school careers had been followed, graduation and dropout information could be determined with high certainty for 263 (nearly 77 percent) of the followup sample children.

Official graduation and dropout figures were obtained from the state education agency for each county and each of the six graduating classes (1981-1986) in which the HOPE sample children were represented. This information was used to estimate precisely for the 263 HOPE children as a group the percentages of those likely to drop out or graduate. These expectations, based as they were on the aggregate of all counties and graduation years, are essentially equivalent to predicted graduation outcomes for untreated children (that is, children who had not been in HOPE with their families). These predicted rates could then be compared to actual rates in order to establish the magnitude of HOPE's influence on graduation. Details of how the graduation comparisons were handled were reported (Gotts, 1988) and were presented together with an explanation of how these procedures effectively control for school effects as a possible alternative causal influence in data analysis. The result is that the effect of HOPE on graduation rates can be estimated with great confidence. Moreover, it was possible to apply to the graduation outcomes a model of economic benefits.

Final Stage of Followup

The final stage of the followup study overlapped the latter part of the fourth stage, running from late 1985 through 1988. In this fifth stage, the data from all preceding stages were brought together and analyzed as a whole. This meant that the entire sweep of events from preschool through high school graduation could be studied. The variables already mentioned for the first four stages of the study were now available together with test records from the preschool period. The remainder of this paper reviews some of the more interesting and compelling highlights of the findings that are more fully reported elsewhere (Gotts, 1988). Finally, implications and recommendations are presented.

Prevention of Early School Failure

A child's entry into school is a significant life event for both family and child. Often it is accompanied by apprehension, special preparation both for the demands of school and the emotional stress of separation from home, and questioning about whether the child is ready for this experience. Consequently, starting school is an important step symbolically in the process of growing up. Society as well as the family and child have an interest in making certain that the child is as ready for school as possible. Kindergarten and preschool experiences, in this context, serve as readiness-producing opportunities. If they are successful, they will both improve early school performance and reduce the sense of discontinuity between life before schooling and attendance at school. HOPE can, accordingly, be judged by its effects on prevention of early school failure. Grade point average (GPA), ability testing (Ability), and achievement testing (Achievement) can all serve as indicators of this outcome. An even more powerful indicator, however, is promotion at the end of the school year from one grade to the next. Conversely, being held back (Retention) is an unfavorable event that may be prevented by appropriate preschool experience. Retention in grade is a fundamentally negative experience that produces few positive results over time (Holmes & Matthews, 1984), despite the frequency of its use.

Looking first at the individual indicators, home visited children (HOPE or Treatment) were compared to those exposed only to TV (Control or Community Control). HOPE was associated with higher GPA and higher tested Ability in both boys and girls. For girls only, HOPE participation was linked to higher Achievement test results. HOPE Involvement predicted for boys improved levels of school attendance, but not for girls. It should be recalled that these findings are not for a school term or a single year, but are based on composite records spanning typically the entire elementary level and, for the older children in the sample, much of their junior high years. Thus the HOPE effects appear quite hardy.

A search of school records for the full followup sample of 342 children revealed that special education placement was rare, falling below the typical expectation for a group of this size. Instead, retention in grade was extensively used. This was especially the practice in the early grades, with retention being used little after the third grade. It is estimated that somewhat over 22 percent of untreated children failed at least one grade in school during these years in the four county school systems. The HOPE Treatment sample provides a striking contrast to this: only about 9.8 percent of these children were ever held back a grade in school. While many other factors in the study were associated with promotion versus retention, clearly it was participation in HOPE that most sharply predicted a favorable outcome. It may be concluded that HOPE was highly successful in preventing early school failure, with all its ill effects.

Prevention of School Dropout

Completion of secondary education is another major milestone in the life of an American child and his or her family. For many children

this event marks an end to formal education, with entry into the work force to follow. For others, the secondary school record will provide an important indication of how well they are likely to do in postsecondary studies that they undertake. Unfortunately, in America many children fail to reach this milestone when they drop out. Some dropouts will later obtain a high school equivalency recognition, but much evidence suggests that on average the General Equivalency Diploma (G.E.D.) is associated with less favorable lifelong occupational and income outlooks than is high school graduation. Graduation with one's peers is, moreover, an experience that imparts a sense of closure of the childhood chapters of one's life; it is for those in developed countries a rite of passage into the world of maturity. Accordingly it is appropriate to focus on this societally acknowledged attainment of a new status: the graduate. Correspondingly, developed societies delight in their graduation rates and scrutinize with concern what the future holds for dropouts. The application of economic analysis to "costs" of not graduating suggests that dropping out is not only personally problematical but has major economic significance and impact, only some of which has been appropriately expressed in terms of dollar cost (McDill, Natriello, & Pallas, 1987).

Using official state figures for dropout and graduation rates in the four counties where HOPE operated, covering graduating classes from 1981 through 1986, the members of the HOPE sample for whom graduation/dropout information was available (known status cases = 263) were statistically treated to match exactly the larger school population for expected graduation rate. This method essentially adjusted for school and school year (cohort) effects that would otherwise have clouded conclusions made from the HOPE findings (Gotts, 1988). Based on these procedures, it can be stated with confidence that the HOPE experimental and control samples came from groups whose respective graduation rates were 72.43 percent and 73.08 percent. Thus their respective dropout rates were 27.57 percent and 26.92 percent.

Based on the foregoing normative information, if they had not participated in HOPE in either experimental or control conditions, predictions could be made regarding how many individuals would probably graduate. There were 78 Control cases, of whom 57 would be predicted to graduate and 21 to drop out. The actual or observed numbers were almost identical to these predictions: 58 graduated (74.36 percent) and 20 dropped out (25.64 percent). The observed numbers are not reliably different from those predicted. This supports the decision to treat the TV-only group, whose early gains had long since washed out, as a Community Control group with which the Treatment group might be compared. Applying the same prediction methods to the 185 experimental children resulted in the prediction that 134 would graduate and 51 would drop out. These predictions should hold if there were no treatment effect. Changes from these predictions may reasonably be viewed as the result of the HOPE home visitation treatment. A substantial treatment effect was in fact observed. Instead of 134, 162 HOPE children graduated for an effective rate of 87.57 percent. Dropouts declined from the predicted 51 to only 23 (12.43 percent). Over one-half of the predicted dropouts graduated. The dropout rate in the Control group was over double that for the Treatment group. HOPE prevented school dropouts. This effect resulted in the face of passing time, school effects, and so on. The durability of the effect favors the view that HOPE resulted in an ongoing treatment. Evidence will later be presented that the ongoing treatment was mediated by the HOPE parents.

Using conservative cost estimates derived by McDill et al. (1987), the foregoing information on dropout prevention could be carried further. In order to do this, it is noted that there were 504 experimental and 199 control cases in the total HOPE sample of 703. The graduation and dropout rates for the known 185 Treatment cases could then be applied to the larger treatment group of 504. If the observed rate of 12.43 percent is applied to the 504, it seems likely that only 63 dropouts occurred within this group. On the other hand, if they had been untreated, from 136 to 139 dropouts would be predicted. The difference between the 63 and the 136 is 73 dropouts prevented. That is, HOPE likely prevented 73 dropouts in the total Treated group. It is estimated that the lifetime earnings difference between high school graduates and dropouts is $107,500 per person. Multiplying this amount

by the 73 dropouts prevented suggests that one societal benefit of the treatment is that their lifetime earnings will be $7,847,500 higher than they would have been if they had dropped out. Other undocumented benefits to society could be expected to include, for these individuals, greater sharing of tax burden, lower public dependency, and reduced demand for public service. Thus, in addition to the personal benefits received by participants and the scientific knowledge generated, it can be affirmed that HOPE produced sizeable economic benefits that ultimately will more than "pay back" all the research and development dollars invested in all stages of the study!

HOPE's Effects on Parents

It has previously been suggested that the ongoing treatment in HOPE was mediated by parents. That is, HOPE parents became different in some ways from untreated parents, with these differences being responsible for their children doing relatively better in school than Control children. The data bearing on this interpretation can now be examined.

Participation in the HOPE home visitor treatment resulted in measurable increases in several favorable parent characteristics. Further information on all of these variables is available in Gotts, 1988. HOPE parents maintained a higher Academic Orientation relative to their children, whether the child was a boy or a girl. Academic Orientation in turn is the most powerful single parenting variable for predicting school effects. With social class effects controlled, Academic Orientation accounted at highly significant levels for all of the following for both sexes: GPA, Ability, Achievement, and a special updated estimate of student grades obtained late in the secondary school career from the school-family interview. In all of the respects just cited of Academic Orientation's influence, it consistently exceeded SES's effects. Both girls and boys expressed more positive self-concepts when their parents had higher Academic Orientation; self-concept was unrelated to social class for either sex.

Parental Nurturance was higher in the home visited group if the child was a son, but not if a daughter. With social class controlled statistically, Nurturance was associated with higher GPA, higher Ability, and higher secondary level grades for boys. Nurturance was correlated with girls' positive self-concepts; this finding was not significant for boys. Interestingly, Parental Control, a variable that interacts with Nurturance to define parent style, was unaffected by the HOPE Treatment. Lower Control was linked to higher GPA for girls, with the effects of SES controlled.

Some respected parenting curricula attempt to change practices and attitudes relative to the issue of control and dominance, even treating this issue as if it were in opposition to parent affection and nurturance. In the HOPE findings, these two issues were basically uncorrelated or independent of one another, with each exerting its own influence on children. Further, control was unaffected by HOPE but nurturance was increased. These results make it clear that nurturance and control should be treated as separate issues; they have their own respective coordinators; control may be more difficult to change.

Home Environment is related to SES, but unlike SES it measures what parents do that influences their children; SES looks only at the status of parents or what their position is in society. The quality of Home Environment appeared to be improved by HOPE for boys only. Improved Home Environment was linked to increased Ability for boys.

The HOPE Treatment increased Generativity in boys' parents. This was also true for each of the components of Generativity: GTrust through GIdent. Parents of girls in HOPE reflected increased Generativity only in the autonomy component (GAuto). The overall Generativity of parents is associated with higher Ability level for both sexes and with higher GPA and Achievement for girls only. The five Generativity components are little related to boys' academic indicators; they fairly consistently relate in a favorable manner to girls' school indicators.

The preceding findings show that HOPE affected Academic Orientation, which is the most potent parental variable for predicting child outcomes. This was true for both boys and girls and strongly supports the view that HOPE affected parents, and they in turn by their actions produced an ongoing treatment effect on their children. Moreover, it was found that functional measures of parent action such as Home Envi-

ronment and Academic Orientation much more adequately account for child outcomes than do demographic status measures like SES. So, while SES is not subject to experimental effects, parents can and do, after experiences of the type provided by HOPE, behave more favorably in respects that increase their children's school performance and prospects for the future.

The picture becomes more complex, however, when certain parent measures are examined. Strong interactions appear between the sex of the child and the effects of HOPE on parents, with parents of boys being more favorably affected for Nurturance, Home Environment, and Generativity and its five components, while girls' parents were not similarly affected. Furthermore, the importance of these parent characteristics to school functioning was manifested in differing ways for the two sexes; sex differences were prominent regarding which parent variables affected particular child variables for boys compared with girls. These additional findings illustrate the complexity of interactions between parenting practices and outcomes. These complexities, nevertheless, do not negate the conclusions based on the data patterns observed for Academic Orientation. This is so because Academic Orientation alone accounts for more of the variance in child school performance than do the other parent variables combined.

HOPE and School-Family Relations

HOPE's home visitation component taught parents how to see themselves as effective partners with schools in the education of their children. The school-family interview completed in 1982-1983, 12 to 14 years after the families' participation, made it possible to examine whether HOPE made any lasting contribution to parent functioning in this area.

The HOPE Treatment increased parents' interest and involvement in their sons' school learning. It also reduced certain defensive parent reactions when boys' parents were contacted about their child being absent from school. HOPE furthermore resulted in parents becoming increasingly invested in assuring that their children behave appropriately at school, with this being true for both boys and girls. This was evidenced by Treated parents expressing stronger reactions regarding their contact experiences with school personnel in relation to child problem behaviors. HOPE parents were inclined to evaluate school personnel in relation to how well they worked together with parents to achieve satisfactory behavioral outcomes.

Parent attendance at scheduled extracurricular activities was associated with a more favorable school performance pattern for both sexes, with this tendency being somewhat greater for girls. By way of contrast, parent membership in formal school organizations related weakly to child school performance. Thus, school-family relations were linked in important ways to school performance. Moreover, HOPE was found to have affected some of these relations in positive directions.

Children's Adjustment, School Performance, and HOPE

Boys' conventional adaptive behaviors were significant predictors of school performance. HOPE led to boys manifesting a more conventional adaptive style. The same coordinated pattern appears for symptoms of depression in boys, with HOPE reducing depression, and lower depression predicting more favorable school outcomes. Depression in girls related to school measures in the same manner, but it was not affected by the Treatment. Boys who were in HOPE were more personally organized, with personal organization being positively related to school success. Personal organization also related to school success for girls, but HOPE did not increase girls' personal organization. An anxious, dependent style of child adjustment related negatively to school indicators for both boys and girls; it was not moderated by HOPE, but parents with higher Academic Orientation had children who were less anxiously dependent. Boys and girls with a shy, serious style did less well in school. HOPE reduced this tendency in boys, while higher parent Academic Orientation resulted in girls who were less shy and serious.

The foregoing findings share some common themes that emerge despite many differences in the particulars. First, children's social and emotional adjustment are important correlates of children's school functioning. HOPE improved the adjustment of boys and, to a lesser extent, girls' adjustment.

Conclusions and Implications

Participation in HOPE's home visitor treatment resulted in more favorable outcomes in parenting, school-family relations, school performance, and children's adjustment. Favorable outcomes in one of these four areas tended to relate to positive outcomes in the remaining areas. HOPE related to a larger number of favorable results for participants who had sons than for those with daughters. In the instance of Academic Orientation, however, HOPE's effects were quite similar for boys and girls. Since Academic Orientation was the most powerful parent predictor of how children were doing and was similar for the sexes, overall girls and boys both benefited substantially from HOPE. It appears that HOPE led parents to behave differently toward their children during the ensuing years. Thus, their parenting practices were improved by means of the skills they acquired or sharpened during the time that their children were preschoolers. Their improved parenting practices included their performing more effectively in the area of school-family relations. As a consequence of these favorable parental practices, the HOPE children surpassed the TV-only children in many respects. Certainly their high rates of promotion and eventual graduation are among the most notable of the ways in which the HOPE children excelled. The superior functioning of the HOPE children occurred in the face of their having come from the same social backgrounds and attended the same schools as the control children.

Conventional wisdom would have favored a school-based preschool experience as being more effective. However, conventional wisdom ignores the contribution of parents to their children's school success and also overlooks the potential of home-based programming to enhance parent effectiveness. Home visitation empowered and trained parents in essential skill areas. Now it is important to recognize, however, that while parents improved their practices, they did not become different in a fundamental sense. That is, they were not asked to espouse some new philosophy or to consciously commit themselves to a lifetime of changed behavior, nor were their parenting practices treated as inferior or lacking in cultural value. The evidence from the HOPE followup supports with great consistency, rather, that all of the valued parent practices were found in the control group as well. Moreover, these parenting variables were generally associated with the same desirable child outcomes as demonstrated in the experimental group. What changed was only the frequency and consistency with which the HOPE parents engaged in these practices. In a sense it may be said that the HOPE parents "did not change; they just became better!" HOPE promoted parent actualization more than it did parent change.

Recommendations

The times have changed since 1968 when AEL began testing the effectiveness of home-oriented preschool education in southern West Virginia. Many more mothers of young children now participate in the outside work force even in highly rural areas. The extended family's ability to support its individual members has been stretched and weakened. Highways have been improved; no longer would it be difficult to transport young children to an early childhood center, and many are already in child care who would have been home a few short years ago. In view of these many changes, should programs like HOPE even be considered for the 1990s?

The answer to the preceding question depends on whether one focuses on the mechanics of how HOPE was delivered or looks instead to the true significance of HOPE. Looking only at the formal structure of the HOPE delivery system, one would conclude readily that many fewer preschool children have a parent at home to provide them this service. But that viewpoint looks to the parent only as a service delivery conduit instead of as the real subject of the HOPE treatment. It matters less, therefore, that fewer parents are in a position to be "service deliverers" in a home-based program. It matters much that all parents of young children have opportunities to develop their own effectiveness as mediators of their children's educational experiences over all the years of learning. Yet, to the extent that schools emphasize preschool education as a solution, the risk increases that they will fail to ask to whom those experiences should be directed. Most eloquently and persuasively the HOPE experience answers: both parent and child, but fundamentally the parent must be assisted. To paraphrase the words of an inspirational American, "We should not ask how parents can help their schools but rather how schools can help their parents." Above all, HOPE makes this challenge and extends its promise!

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